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SHOOK, HARDY & BACON LLP
2555 GRAND BLVD
KANSAS CITY,, MO 64108

EXAMINER	
SPOONER, LAMONT M	

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2654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/557,741	NAKAJIMA ET AL.	
	Examiner	Art Unit	
	Lamont M Spooner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 11, 12, 15-17, 19, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Bellegarda et al.

As per **claim 1**, Bellegarda et al. discloses a machine-readable medium having instructions stored thereon for executing by a processor to implement a computer program providing a language model service shareable among handlers for input devices (C.1.lines 25-28), comprising:

a pre-processing mode of operation (Fig. 1 training mode, Fig. 2 training mode, C.3.lines 64-67-the first steps in the training mode are processed before the decoding/correction mode, thereby interpreted as a pre-processing mode of operation) in which the language model service (Fig. 1 items 28, 30, 32, 34, 36a, 38a are language model services, C.7.lines 9-11, 17-19, C.8.lines 24, 25, Fig. 2 item 58a-is the language model service) is designed to receive a range within a document (text produced by speech or handwriting recognizer, C.7.lines 15-17, C.8.lines 17, 18, 23, 24-the parameters specify the range within the document to be received) from a handler for an

input device (Fig. 1 items 12, 24, 26-are handlers, items 16, 22, 20 are input devices, Fig 2 items 24, 26, 12 are handlers, items 16, 22, 20 are input devices, C.5.lines 19-21, 25-30) and in response provide to the handler (C.10.lines 22, 23-the handler being the user interface application program interface (API)) advice regarding text under consideration by the handler to insert within the document at the range (C.5.lines 25-30, C.10.lines 20-24-the candidate word is inserted at the given range), based on the context of the document within the range (C.8.lines 23-27-the document range is "The phone rings"); and,

a correction mode of operation (Fig. 1-decoding section, Fig 2 decoding section, C.2.lines 32-34-the decoding entails the correction of wrongly inserted words) in which the language model service (Fig. 2 item 58a) is designed to supervise correction over a range of text within a document (C.11.lines 38-41-in accordance with the language model service correction and most probable words are obtained) in which a number of different handlers for a number of different input devices were initially responsible for insertion of the text (C.11.line 40, Fig 2 items 24, 26), such that the language model service solicits suggestions from the different handlers (C.11.lnes 20-22-the features are solicited to the language model service) and based thereon determines text corrections (C.8.lines 28, 29-the highest probability from the language model determines the correct word, C.10.lines 18-21).

As per **claim 2**, Bellegarda et al. discloses all of the limitations of claim 1, upon which claim 2 depends. Bellegarda et al. further discloses:

the advice provided by the language model service (C.4.lines 14-21-the word models provide advice-probabilities) to the handler for the input device in the pre-processing mode of operation comprises a best path through a lattice (C.8.lines 24-26, 33, 34 "the phone drinks" and "the phone drinks" using the 3-gram model-the tri-gram model with the choices "rings, drinks and shrinks" indicate the lattice paths available, and by the score/probability the best path is determined, C.9.lines 1-8-best path choices), maintained by the language model service (C.8.lines 23-26).

As per **claim 3**, Bellegarda et al. discloses all of the limitations of claim 1, upon which claim 3 depends. Bellegarda et al. further discloses:

the text corrections determined by the language model service in the correction mode of operation are made by the language model service itself (C.11.lines 38-40-the language model service "LM 58a" without the handler determines the most probable word which is interpreted as the correction or correct choice).

As per **claims 4**, Bellegarda et al. discloses all of the limitations of claim 1, upon which claim 4 depends. Bellegarda et al. further discloses:

the text corrections determined by the language model service in the correction mode of operation are returned to the different handlers such that the different handlers are requested to make the text corrections themselves (C.2.lines 30-35-the error identified during decoding by the language model service is returned to the handler-user interface-for the correction to be made).

As per **claim 5**, Bellegarda et al. discloses all of the limitations of claim 1, upon which claim 5 depends. Bellegarda et al. further discloses:

the suggestions solicited by the language model service (C.11.lnes 20-22-the features are solicited to the language model service) from the different handlers (Fig. 2 items 24, 26) in the correction mode of operation (Fig. 2 decoding) comprise paths through lattices (C.8.lines 24-26, 33, 34 "the phone drinks" and "the phone drinks" using the 3-gram model-the tri-gram model with the choices "rings, drinks and shrinks" indicate the lattice paths available, and by the score/probability the best path is determined, C.9.lines 1-8-best path choices) maintained by the different handlers (C.6.lines 32, 33-the one or more feature vectors comprise paths, C.7.lines 1-5).

As per **claim 11**, Bellegarda et al. discloses a computer-implemented method (C.3.lines 59-61) comprising:

receiving by a language model service (Fig. 1 items 28, 30, 32, 34, 36a, 38a are language model services, C.7.lines 9-11, 17-19, C.8.lines 24, 25, Fig. 2 item 58a-is the identified language model service) in a pre-processing mode of operation (Fig. 1 training mode, Fig. 2 training mode, C.3.lines 64, 67-the first steps in the training mode are processed before the decoding/correction mode, thereby interpreted as a pre-processing mode of operation) a range within a document (C.5.lines 25-30, C.10.lines 20-24-the candidate word is inserted at the given range) from a handler for an input device (Fig. 1 items 24, 26, 12-are handlers, items 16, 22, 20 are input devices, Fig 2 items 24, 26, 12 are handlers, items 16, 22, 20 are input devices, C.5.lines 19-21, 25-30);

generating by the language model service advice regarding text under consideration by the handler to insert within the document at the range (C.5.lines 25-30, C.10.lines 20-24-the candidate word-the advice- is inserted at the given range);

providing by the language model service the advice to the handler (C.4.lines 14-21-the word models provide advice-probabilities to the handler-C.10.lines 19-24-the user interface being the handler including a word processing program).

As per **claim 12**, Bellegarda et al. discloses all of the limitations of claim 11, upon which claim 12 depends. Bellegarda et al. further discloses:

determining by the handler the text under consideration to insert within the document at the range (C.10.lines 19-24-the candidate word is considered by the handler as a recognized message to be displayed, the range is given by, C.8.lines 23-26) based on the advice provided by the language model service (C.4.lines 14-21-the word models provide advice-probabilities to the handler-C.10.lines 19-24-the user interface being the handler including a word processing program); and,

inserting by the handler the text under consideration within the document at the range (C.10.lines 19-24-the word processing program has the word inserted at the range, C.8.lines 23-26).

As per **claim 15**, Bellegarda et al. discloses all of the limitations of claim 11, upon which claim 15 depends. Bellegarda et al. further discloses:

the advice provided by the language model service (C.4.lines 14-21-the word models provide advice-probabilities) to the handler for the input device in the pre-processing mode of operation comprises a best path through a lattice (C.8.lines 24-26,

33, 34 "the phone drinks" and "the phone drinks" using the 3-gram model-the tri-gram model with the choices "rings, drinks and shrinks" indicate the lattice paths available, and by the score/probability the best path is determined, C.9.lines 1-8-best path choices), maintained by the language model service (C.8.lines 23-26).

As per **claim 16**, Bellegarda et al. discloses a computer-implement method (C.3.lines 59-61) comprising:

soliciting suggestions over a range of text within a document by a language model service (C.11.lnes 20-22-the features are solicited to the language model service) in a correction mode of operation (Fig. 2 decoding) in which a number of different handlers (Fig. 2 items 12, 24, 26) for a number of different input devices (Fig. 2 items 14, 16, 20, 22) were initially responsible for inserting of the text (C.6.lines 32, 33 "Processor 24 ..."-which is a handler initially inserts the character text, C.7.lines 1-4);

receiving the suggestions by the language model service (C.11.lnes 20-22-the features are solicited to the language model service-thereby receiving the suggestions) from the different handlers (Fig. 2 items 24, 26); and

determining corrections to the text by the language model service based on the suggestions received from the different handlers corrections (C.8.lines 28, 29-the highest probability from the language model determines the correct word, C.10.lines 18-21)..

As per **claim 17**, Bellegarda et al. discloses all of the limitations of claim 16, upon which claim 17 depends. Bellegarda et al. further discloses:

making the corrections by the language model itself (C.8.lines 28, 29-the highest probability from the language model determines the correct word, C.10.lines 18-21).

As per **claim 19**, Bellegarda et al. discloses all of the limitations of claim 16, upon which claim 19 depends. Bellegarda et al. further discloses:

receiving the corrections by the different handlers from the language model service (C.2.lines 30-35-the error identified during decoding by the language model service is returned to the handler, user interface for the correction to be made); and,

making the corrections by the different handlers themselves (C.2.lines 30-34, C.10.lines 19-24-the user interface/handler, word processing program through the use of an input device makes the correction itself).

As per **claim 22**, Bellegarda et al. discloses all of the limitations of claim 16, upon which claim 22 depends. Bellegarda et al. further discloses:

the suggestions solicited by the language model service (C.11.lnes 20-22-the features are solicited to the language model service) from the different handlers (Fig. 2 items 24, 26) comprise paths through lattices (C.8.lines 24-26, 33, 34 "the phone drinks" and "the phone drinks" using the 3-gram model-the tri-gram model with the choices "rings, drinks and shrinks" indicate the lattice paths available, and by the score/probability the best path is determined, C.9.lines 1-8-best path choices) maintained by the different handlers (C.6.lines 32, 33-the one or more feature vectors comprise paths, C.7.lines 1-5).

As per **claim 23**, Bellegarda et al. discloses a computerized system comprising:

a plurality of handlers, each handler for an input device and able to enter text into a document (Fig. 1 items 24, 26, 12-are handlers, items 16, 22, 20 are input devices, Fig 2 items 24, 26, 12 are handlers, items 16, 22, 20 are input devices, C.5.lines 19-21, 25-30); and,

a language model service sharable among the plurality of handlers, comprising: a pre-processing mode of operation (Fig. 1 training mode, Fig. 2 training mode, C.3.lines 64, 67-the first steps in the training mode are processed before the decoding/correction mode, thereby interpreted as a pre-processing mode of operation) in which the language model service (Fig. 1 items 28, 30, 32, 34, 36a, 38a are language model services, C.7.lines 9-11, 17-19, C.8.lines 24, 25, Fig. 2 item 58a-is the identified language model service) is designed to receive a range within a document (C.7.lines 15-17, C.8.lines 17, 18, 23, 24-the parameters specify the range within the document to be received) from a handler (Fig. 1 items 24, 26, 12-are handlers, items 16, 22, 20 are input devices, Fig 2 items 24, 26, 12 are handlers) and in response provide to the handler (C.10.lines 22, 23-the handler being the user interface application program interface (API)) advice regarding text under consideration by the handler to insert within the document at the range (C.5.lines 25-30, C.10.lines 20-24-the candidate word is inserted at the given range), based on the context of the document within the range (C.8.lines 23-27-the document range "The phone rings"); and,

a correction mode of operation (Fig. 1-decoding section, Fig 2 decoding section, C.2.lines 32-34-the decoding entails the correction of wrongly inserted words) in which the language model service (Fig. 2 items 58a) is designed to supervise correction over

a range of text within a document (C.11.lines 38-41-in accordance with the language model service correction and most probable words are obtained) in which more than one of the plurality of handlers were initially responsible for insertion of the text, (C.11.lines 40, Fig 2 items 24, 26), such that the language model service solicits suggestions from the different handlers (C.11.lnes 20-22-the features are solicited to the language model service) and based thereon determines text corrections (C.8.lines 28, 29-the highest probability from the language model determines the correct word, C.10.lines 18-21).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6-10, 13, 14, 18, 20, 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellegarda et al. in view of DeStefano et al. (US Patent No. 6,308,187 filed Feb. 9, 1998).

Bellegarda et al. and DeStefano et al. are analogous art in that they both involve electronic information processing.

As per **claim 6**, Bellegarda et al. discloses all of the limitations of claim 1, upon which claim 6 depends. Bellegarda et al. further discloses:

the language model service interacts with a framework to access the document (C.14.lines 1-11-the framework being the neural network, as defined by Newton's

Telecom Dictionary to include multiple processors/applications and generalizing/abstracting data for a data source to solve a problem or correct an error by owning applications including, handwritten applications and spoken applications, the recognition inherently necessitates accessing the document).

Bellegarda et al. does not disclose:

the language model service interacts with a common text framework to access the document.

However, as it is well known in the art, DeStefano et al. teaches having a common text framework (Fig. 2 item 38-Window APIs, Graphic APIs, Tasking APIs and I/O APIs, C.6.lines 24-27, which takes collections of information included as common text, and generates an abstraction thereof, C.7.lines 28-34, C.8.lines 26-29). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. with DeStefano et al. The motivation would have been to operate on multiple text applications common to the handlers, which would enhance the Integrated Speech and Writing Interface (ISWI) modeling, by enabling the ISWI to interact with multiple applications.

As per **claim 7**, Bellegarda et al. and DeStefano et al. disclose all of the limitations of claim 6, upon which claim 7 depends. Bellegarda et al. does not disclose:

the language model service accesses the document through an abstraction of the document exposed by an owning application via the common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document (C.7.lines 28-30) exposed by an owning application, via a

common text framework (C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. and DeStefano et al. The motivation for doing so would have been to operate on multiple text applications abstracts common to the handlers, which would enhance the Integrated Speech and Writing Interface modeling, by enabling the ISWI to interact with an appropriate application.

As per **claim 8**, Bellegarda et al. discloses a machine readable medium having instructions stored thereon for execution by a processor to implement a computer program providing a language model service shareable among handlers for input devices, comprising:

a pre-processing mode of operation (Fig. 1 training mode, Fig. 2 training mode, C.3.lines 64, 67) in which the language model service Fig. 2 item 58a-is the language model service) is designed to receive from a handler for an input device Fig. 1 items 24, 26, 12-are handlers, items 16, 22, 20 are input devices, Fig 2 items 24, 26, 12 are handlers, items 16, 22, 20 are input devices, C.5.lines 19-21, 25-30) a range within a document of an owning application (C.5.lines 25-30, C.10.lines 20-24-the candidate word is inserted at the given range, C.6.lines 26, 27, 34-37-the owning application is the electronic tablet application for handwriting).

in response provide to the handler (C.10.lines 22, 23-the handler being the user interface application program interface (API)) advice regarding text under consideration by the handler to insert within the document at the range (C.5.lines 25-30, C.10.lines

20-24-the candidate word is inserted at the given range), based on the context of the document within the range (C.8.lines 23-27-the document range "The phone rings"); and,

a correction mode of operation (Fig. 1-decoding section, Fig 2 decoding section, C.2.lines 32-34-the decoding entails the correction of wrongly inserted words) in which the language model service (Fig. 2 item 58a) is designed to supervise correction over a range of text within a document (C.11.lines 38-41-in accordance with the language model service correction and most probable words are obtained) in which a number of different handlers for a number of different input devices were initially responsible for insertion of the text (C.11.line 40, Fig 2 items 24, 26), such that the language model service solicits suggestions from the different handlers (C.11.lnes 20-22-the features are solicited to the language model service) and based thereon determines text corrections (C.8.lines 28, 29-the highest probability from the language model determines the correct word, C.10.lines 18-21).

Bellegarda et al. does not disclose:

access to which (a range within a document) is through an abstraction thereof as exposed by an owning application

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document (C.7.lines 28-30) exposed by an owning application, via a common text framework (C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine

Bellegarda et al. and DeStefano et al. The motivation for doing so would have been to operate on multiple text applications abstracts common to the handlers, which would enhance the Integrated Speech and Writing Interface modeling, by enabling the ISWI to correct an appropriate application.

As per **claim 9**, Bellegarda et al. and DeStefano et al. disclose all of the limitations of claim 8, upon which claim 9 depends. Bellegarda et al. further discloses:

the text corrections determined by the language model service in the correction model service in the correction mode of operation are made by the language model service itself (C.11.lines 38-40-the language model service "LM 58a" without the handler determines the most probable word which is interpreted as the correction or correct choice).

Bellegarda et al. does not disclose:

the text corrections determined by the language model service in the correction model service in the correction mode of operation are made by the language model service itself via the common text framework through the abstraction of the document exposed by the owning application.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, it would have been obvious at the time of the invention to combine Bellegarda et al. with DeStefano et al. The motivation for doing so would have

been to enable the language model, with a high probability of message recognition, to determine the if corrections of multiple text applications abstracts through the framework, common to handlers, was acceptable for message recognition, which would enhance the Integrated Speech and Writing Interface modeling, by enabling the ISWI to correct an appropriate application.

As per **claim 10**, Bellegarda et al. and DeStefano et al. disclose all of the limitations of claim 8, upon which claim 10 depends. Bellegarda et al. further discloses:

the text corrections determined by the language model service in the correction mode of operation are returned to the different handlers such that the different handlers are requested to make the text corrections themselves (C.2.lines 30-35-the error identified during decoding by the language model service is returned to the handler, user interface for the correction to be made).

Bellegarda et al. does not disclose:

the text corrections determined by the language model service in the correction mode of operation are returned to the different handlers such that the different handlers are requested to make the text corrections themselves, such that the different handlers make the text corrections via the common text framework through the abstraction of the document exposed by the owning application.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig.

2 item 38). Therefore, it would have been obvious at the time of the invention to combine Bellegarda et al. with DeStefano et al. The motivation for doing so would have been to enable the handlers, from the language model service, with a high probability of message recognition, to determine the if corrections of multiple text applications abstracts through the framework, common to the handlers, was acceptable for message recognition, which would enhance the Integrated Speech and Writing Interface modeling.

As per **claim 13**, Bellegarda et al. discloses all of the limitations of claim 12, upon which claim 13 depends. Bellegarda et al. further discloses:

inserting by the handler the text under consideration within the document at the range (C.2.lines 30-35-the error identified during decoding by the language model service is returned to the handler-user interface-for the where the insertion is made).

Bellegarda et al. does not disclose:

inserting by the handler the text under consideration within the document at the range comprises so inserting the text at the range via a common text framework through an abstraction of the document as exposed by an owning application.

However, as it is well known in the art, DeStefano et al teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. with DeStefano et al. The motivation for doing so would have

been to insert the corrections into the appropriate application, through a set of applications linked to the programs that determine the corrections..

As per **claim 14**, Bellegarda et al. discloses all of the limitations of claim 11, upon which claim 14 depends. Bellegarda et al. further discloses providing by the language model service the advice to the handler comprises:

accessing text within the range of the document (C.7.lines 15-17, C.8.lines 17, 18, 23, 24-the parameters specify the range within the document to be received, C.8.lines 23-26).

Bellegarda et al. does not disclose:

accessing text within the range of the document via a common text framework through an abstraction of the document as exposed by an owning application thereof via the common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. with DeStefano. The motivation for doing so would have been to access text belonging to an appropriate application in within a common text set of applications.

As per **claim 18**, Bellegarda et al. discloses all of the limitations of claim 17, upon which claim 18 depends. Bellegarda et al. does not disclose:

the corrections are made by the language model service via a common text framework through an abstraction of the document as exposed by an owning application via the common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, it would have been obvious at the time of the invention to combine Bellegarda et al. with DeStefano et al. The motivation for doing so would have been to enable the language model, with a high probability of message recognition, to make the corrections of multiple text applications abstracts through the framework, which would enhance the Integrated Speech and Writing Interface modeling, by providing corrections to a common base of applications.

As per **claim 20**, Bellegarda et al. discloses all of the limitations of claim 19, upon which claim 20 depends. Bellegarda et al. does not disclose:

the corrections are made by the language model service via a common text framework through an abstraction of the document as exposed by an owning application via the common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document exposed by an owning application abstraction of the document (C.7.lines 28-30-owning application, C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig.

2 item 38). Therefore, it would have been obvious at the time of the invention to combine Bellegarda et al. with DeStefano et al. The motivation for doing so would have been to enable the handlers, from the language model service, with a high probability of message recognition, to make the corrections of multiple text applications abstracts through the framework, common to the handlers, and acceptable for message recognition, which would enhance the Integrated Speech and Writing Interface modeling, by providing corrections to a common base of applications.

As per **claim 21**, Bellegarda et al. discloses all of the limitations of claim 16, upon which claim 21 depends. Bellegarda et al. does not disclose:

access to the range of text of the document by the language model service and the different handlers is through an abstraction thereof as exposed by an owning application via a common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document (C.7.lines 28-30) exposed by an owning application, via a common text framework (C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. and DeStefano et al. The motivation for doing so would have been to operate on multiple text applications abstracts common to the handlers and the language model service, which would enhance the Integrated Speech and Writing Interface modeling, by providing access to the processors capable of making a correction to abstractions of a common base of applications.

As per **claim 24**, Bellegarda et al. discloses all of the limitations of claim 23, upon which claim 24 depends. Bellegarda et al. does not disclose:

the plurality of handlers and the language model service interacts with a common text framework to access the document.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document (C.7.lines 28-30) exposed by an owning application, via a common text framework (C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. and DeStefano et al. The motivation for doing so would have been to operate on multiple text applications abstracts common to the handlers and the language model service, which would enhance the Integrated Speech and Writing Interface modeling, by providing access to the processors capable of making a correction to abstractions of a common base of applications.

As per **claim 25**, Bellegarda et al. discloses all of the limitations of claim 23, upon which claim 24 depends. Bellegarda et al. does not disclose:

the plurality of handlers and the language model service accesses the document through an abstraction of the document exposed by an owning application via the common text framework.

However, as it is well known in the art, DeStefano et al. teaches having an abstraction of the document (C.7.lines 28-30) exposed by an owning application, via a common text framework (C.8.lines 26-29, Fig. 2 item 38-each data item is owned by it's

application, which is included in the common text framework of Fig. 2 item 38). Therefore, at the time of the invention, it would have been obvious to combine Bellegarda et al. and DeStefano et al. The motivation for doing so would have been to operate on multiple text applications abstracts common to the handlers and the language model service, which would enhance the Integrated Speech and Writing Interface modeling, by providing access to the processors capable of making a correction to abstractions of a common base of applications, and applying the correction to the appropriate application.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Carlson et al. (US Patent No. 6,052,525 April 18, 2000) teaches correcting errors through a framework.
- Imai et al. (US Patent No. 6,393,398 filed Nov. 22, 1999) teaches having a bi-gram model which generates a word lattice.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M Spooner whose telephone number is 703/305-8661. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on 703/306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER